

Abstract

A tunable capacitor that introduces significantly less loss, if any, costs less and is smaller than previously available. A bias electrode is coupled to a 5 FE material. The capacitor electrodes are electro-magnetically coupled to the FE material, such that the capacitor electrodes and the bias electrode are not touching. Only non-conductive material is in the gap defined by the capacitor electrodes. The bias electrode 10 is used to apply a variable DC voltage to the FE material. A capacitor electrode serves as a DC ground for producing a variable DC field between the bias electrode and the capacitor electrodes.

15